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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,961	03/12/2004	Randy L. Hoffman	82186844	1458
22879	7590	10/27/2011		
HEWLETT-PACKARD COMPANY			EXAMINER	
Intellectual Property Administration			KRAIG, WILLIAM F	
3404 E. Harmony Road			ART UNIT	
Mail Stop 35			PAPER NUMBER	
FORT COLLINS, CO 80528			2892	
			NOTIFICATION DATE	
			DELIVERY MODE	
			10/27/2011	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/799,961

Applicant(s)

HOFFMAN ET AL.

Examiner

WILLIAM F. KRAIG

Art Unit

2892

Period for Reply -- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1,2,6-18,20,37-44 and 48-56 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 6-11, 14,15,38-41 and 51-56 is/are allowed.
- 7) ☒ Claim(s) 1,2,12,13,16-18,20,37,42-44 and 48-50 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 052611
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1, 2, 12, 13, 16-18, 20, 37, 42-44 and 48-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 2, 18, 20, 37, 42-44 and 48-50, the Examiner notes that, due to the language of claim 6, the limitation (contained in claims 1, 18, 37 and 48) of "compounds of the formula $A_xB_xO_x$ " is amenable to two or more plausible claim constructions as follows. As Applicant's have previously contended, the term in question can reasonably be viewed as closed-ended (i.e., the claimed compounds cannot contain additional elements). Further, as was noted in the BPAI decision dated 7/29/2011, the presence of claim 6 (which states that "wherein the one or more compounds of the formula $A_xB_xO_x$ includes C_x to form a compound of the formula $A_xB_xC_xO_x$ ") provides evidence that the term in question can also be reasonably viewed as open-ended (i.e., the claimed compounds can include additional elements). Therefore, Applicant's amendment does not resolve the issue regarding two or more plausible claim interpretations with respect to claims 1, 18, 37 and 48, and the claims depending therefrom.

2. Regarding claims 12 and 13, claim 12 contains the limitation "the one or more compounds of the formula $A_xB_xC_xD_xO_x$ ". There is insufficient antecedent basis for this

limitation in the claim. The Examiner believes that claim 12 more properly depends from claim 10 (instead of from claim 1), and will Examine the claims as such.

3. Regarding claims 16 and 17, claim 12 contains the limitation "the one or more compounds of the formula $A_xB_xC_xD_xE_xO_x$ ". There is insufficient antecedent basis for this limitation in the claim. The Examiner believes that claim 16 more properly depends from claim 14 (instead of from claim 1), and will Examine the claims as such.

Allowable Subject Matter

4. Claims 6-11, 14, 15, 38-41 and 51-56 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 6-11, 14, 15, 38-41 and 51-56, the closest prior art (which has been made of record) fail to disclose (by themselves or in combination) the channel including one or more compounds of the formula $A_xB_xO_x$, wherein the one or more compounds of the formula $A_xB_xO_x$ includes one or more of gallium-germanium oxider, gallium-tin oxide, gallium-lead oxide, indium-germanium oxide, indium-lead oxide, each O is atomic oxygen, wherein the channel includes one of an amorphous form and a mixed-phase crystalline form further wherein the one or more compounds of the formula $A_xB_xO_x$ includes C_x , to form a compound of the formula $A_xB_xC_xO_x$, wherein each C is selected from the group of Ga, In, Ge, Sn, Pb, and wherein each of A, B and C are different in further combination with the additionally claimed features, as are claimed by

the Applicant. Thus, the Applicant's claims are determined to be novel and non-obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

5. Applicant's arguments filed on 9/28/2011 regarding the rejections under 35 U.S.C. 112, second paragraph, of claims 1, 2, 18, 20, 37, 42-44 and 48-50 have been fully considered but they are not persuasive. Specifically, Applicant argues that because of the amendments to claims 6, 38 and 51, the "independent claims are now subject to only one interpretation". The Examiner argues that the presence of claim 6 continues to provide evidence that there exist two or more plausible claim constructions, and thus maintains the rejections of claims 1, 2, 18, 20, 37, 42-44 and 48-50.

6. Applicant's arguments filed on 9/28/2011 regarding the rejections under 35 U.S.C. 112, second paragraph, of claims 6-17, 38-41 and 51-56 have been fully considered and are persuasive. The previous rejections of these claims have thus been withdrawn. The Examiner notes, however, that claims 12, 13, 16 and 17 are subject to new rejections under 35 U.S.C. 112, second paragraph, for containing limitations for which there exists no antecedent basis. These rejections can be found above.

7. Applicant's arguments filed on 9/28/2011 regarding the rejections under 35 U.S.C. 112, fourth paragraph, of claims 6-17, 38-40 and 51-56 have been fully considered and are persuasive. The Examiner notes that the amendments to the claims (dated 9/28/2011) have overcome the previous rejections of these claims, because, as the claims are currently written, the limitations of the form "compounds of the formula $A_xB_xO_x$ " can only be reasonably subject to an open-ended claim interpretation (i.e., where the compounds can contain further elements).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM F. KRAIG whose telephone number is (571)272-8660. The examiner can normally be reached on Mon-Fri 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thao X. Le can be reached on 571-272-1708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM F KRAIG/
10/23/2011
Primary Examiner, Art Unit 2892